Federal Lab Consortium Honors CERL Innovation at Award Ceremony

by Dana Finney

The Federal Laboratory Consortium (FLC) presented Tad Britt with the Award for Excellence in Technology Transfer at a ceremony in Washington, D.C., during May. Britt, a senior researcher at the U.S. Army Engineer Research and Development Center (ERDC), was cited for his development of the Automated Resource Management System (ARMS™ – patent pending).

(l-r) Ed Linsenmeyer, FLC Chair, Britt, Cynthia Gonsalves DoD Technology Transfer Program Manager, CERL Director Dr. Ilker Adiguzel, and Susan Sprake FLC Vice Chair.

ARMS™ is a handheld instrument that can collect high-resolution digital data in a logical, consistent way and organize it into a database. Users can access the data through pre-programmed queries or automatically generate reports that can include geo-referenced maps and photos embedded within the text.

Britt came up with the idea for ARMS™ a few years ago while he was doing field work as an archaeologist. In juggling the array of digital tools he needed to do his job, including a GPS receiver, PDA, and digital camera, it struck him that having everything onboard one portable system would be extremely useful. “I thought it would be great if all of these tools could be combined in one device,” he said.

Britt with the HAMMER

So he initially formed a partnership with Surveylab Group, Ltd., of New Zealand, under a Cooperative Research and Development Agreement (CRADA). Surveylab used the ARMS™ innovations to enhance its handheld data collection hardware, resulting in a product marketed as the ike304™. According to Britt, “Over 150 units have been sold and deployed during Operation Iraqi Freedom and in the Corps of Engineers civil works program.”

Under a new CRADA with Compass Systems of Lexington Park, Md., Britt is developing the next-generation device. Called the Hand-held Apparatus for Mobile Mapping and Expedited Reporting (HAMMER), the unit will combine earlier features with new capabilities such as radiofrequency identification (RFID) tags and networks of sensors. “Depending on the

intended use, HAMMER could be used with tags linked to any kind of sensor – radiological, proximity, seismic, temperature, or acoustic, for example."

And while Britt has realized his vision to have a device that would help in his own career field, HAMMER will have multiple other uses. Federal spin-offs include natural and cultural resource studies, environmental baseline assessments, humanitarian demining, disaster response (he used ARMS™ after Hurricane Katrina to log damage to houses), and homeland security work. Commercial uses could be in construction, real estate, city management, and many other areas.

Britt works in the Land and Heritage Conservation Branch at ERDC's Construction Engineering Research Laboratory in Champaign, Ill. Compass Systems has filed a patent for HAMMER and is seeking industry partners to bring the device to market.

FLC is the nationwide network of federal laboratories that provides the forum to develop strategies and opportunities for linking laboratory mission technologies and expertise with the marketplace. The consortium presents awards annually to recognize federal researchers and managers who have demonstrated excellence in meeting nationally mandated technology transfer goals.